

# How to eat more calories and protein

For people with cancer who have lost weight or have a poor appetite

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## This booklet will give you information about:

- why calories and protein are important
- how many calories and how much protein you should eat
- if you need to take vitamin and mineral supplements
- what oral nutrition supplements are
- ideas for high-calorie and protein foods, meals, snacks and recipes.



## **Why are calories and protein important?**

Eat enough calories and protein to help you:

- keep your strength and energy
- keep your weight and muscle mass
- deal with side effects from your treatment
- lower your risk of infection and hospital stay
- heal and get better faster.

## **How many calories should I eat?**

- Weigh yourself once a week. If you lose weight without trying, you may need to eat more calories.
- Your body uses calories for energy. All food has calories. Some foods have more calories than others.
- Page 6 has a list of high-calorie foods. Eat more of these foods to help you gain or keep your weight.

## **How much protein should I eat?**

- Eat a high-protein food at each meal and snack. Page 8 has a list of high-protein foods.
- People with cancer usually need more protein. Protein helps to build muscle and repair healthy cells that are damaged during treatment (chemotherapy, radiation, surgery, other prescribed medications).

## Should I take vitamin and mineral supplements?

- No, unless your doctor tells you otherwise. Your body needs the same amount of vitamins and minerals as before your cancer diagnosis. The best way to get vitamins, minerals, and antioxidants is to eat a variety of foods.
- A **regular strength** multivitamin-mineral supplement may help you meet your vitamin and mineral needs if you do not eat enough. Some research suggests that big doses of vitamins and minerals may affect how well your cancer treatment works.
- Supplements with antioxidants, like vitamin C, vitamin E, beta-carotene, and selenium, are **not** recommended while you are on treatment. This is because many treatments work in the opposite ways to how antioxidants act. This may affect how well your treatment works. Foods that have antioxidants are safe to eat during treatment.
- **Talk to your pharmacist or oncologist (cancer doctor) about any vitamins, minerals, or other natural health products you use or plan to use.**

## I am never hungry – how can I eat enough?

- **Choose high-calorie and protein foods** most often. Eat vegetables and other low calorie foods at the end of your meal.
- **Eat small meals or snacks every 2 to 3 hours.** Set alarms as a reminder to eat if you never feel hungry.
- **Keep foods and snacks where you can see them** as a reminder to eat. Bring a snack to eat while you wait for or after your appointments.
- **Choose liquids that give you energy** like milk, smoothies, soups, and fruit juice. Drink liquids between meals so you do not fill up as quick.
- **Go for a short walk** to increase your appetite.
- **Eat your biggest meal when you feel most hungry,** not when you usually would.
- **Make it easier to cook.** Keep easy-to-make foods in your kitchen, like frozen entrées, canned foods, eggs, or make and freeze meals when you have energy.



- **Eat what tastes good.** This may mean you eat breakfast for dinner, or eat the same foods every day. Try new foods and recipes if you no longer like the taste of your favourite food.

- **Try nutrition supplement drinks or powders.**

## What are nutrition supplements?

Nutrition supplements are drinks or powders that provide extra calories and/or protein. Eat or drink these if you do not get enough nutrition from food. Nutrition supplements include:

- **Complete nutrition drinks**, like Ensure® and Boost®. These drinks have calories, protein, and all the nutrients your body needs.
- **Protein powders**, like Beneprotein® and Boost® Just Protein™. These add extra protein when mixed with soft foods, like oatmeal or congee, or drinks.
- **Juice-type drinks**, like Boost® Fruit Flavoured Beverage or Ensure® Clear. These provide extra nutrition but are missing some important nutrients.

To get the most from nutrition supplement drinks:

- choose higher calorie drinks, like Boost® 2.24, Ensure® Plus Calories, Boost® Plus, and Ensure® Advance
- sip on nutrition supplement drinks between meals or instead of lower calorie liquids like water and juice
- mix with 3.25% milk, soy milk, or plain yogurt, add a pinch of salt, or pour over ice if drinks are too sweet
- try different flavours, add instant coffee, flavoured syrups, or a pinch of cinnamon if you are bored with the taste.

## High-calorie foods

### Canola, olive, vegetable, and other oils

- Pan-fry meats, fish, vegetables, and stir-fries.
- Toss to coat vegetables, noodles, rice, and other grains.
- Drizzle over hummus, labneh, and other dips before serving.
- Dip bread in olive oil.
- Add tasteless oil, like canola oil, to smoothies, soups, congee, hot cereal, or other recipes.

### Avocado

- Eat as a snack.
- Blend into smoothies or milkshakes.
- Spread on sandwiches and crackers.

### Butter and margarine

- Add to cooked vegetables, mashed potatoes, hot cereal, and rice.
- Toss to coat pasta before adding sauce.
- Spread on bread, muffins, flatbread, and other baked goods.

### Cream cheese, mayonnaise, sour cream, and full fat dips

- Eat with sandwiches, crackers, or chips.
- Add to tuna, egg, chicken, or mashed chickpea salad.

### **Cream**

- Choose cream with a higher “% MF,” like 18% or 35%, for more calories.
- Use to make puddings, soups, and sauces.
- Pour over custard, jelly, fruit, or other desserts.
- Top pancakes, fruit, desserts, and hot drinks with whipped cream.
- Blend into smoothies, milk shakes, and lassis.

### **Jams, jellies, syrups, honey, chocolate spread, and sweetened condensed milk**

- Spread on toast, muffins, flatbread, and crackers.
- Add to yogurt, ice cream, hot cereals, and pudding.
- Blend into smoothies, milkshakes, or other iced drinks.

### **Dried fruit and coconut**

- Sprinkle on cereal, ice cream, custard, yogurt, ricotta cheese, and desserts.
- Mix with cereal and nuts to make trail mix.

Note: If you are lactose intolerant, choose “lactose-free” cow milk products or plant-based options.

## High-protein foods

### Meat, poultry, and fatty fish

- Add precooked meat or canned fish to soups, noodles, rice, or grain dishes.
- Pick fatty fish like salmon, trout, mackerel, herring or sardines.

### Legumes (dried beans, peas, lentils)

- Add to soups, stews, casseroles, and salads.
- Mix with rice, noodle, and vegetable dishes.

### Tofu

- Chop and add to soups, stir-fries, and salads.
- Blend soft tofu into smoothies, milkshakes, or pudding.

### Eggs

- Whisk into oatmeal and soups at the end of cooking.
- Make quiche, omelette, or scrambled eggs with cheese or meat.
- Make Chinese steamed egg with shrimp and sesame oil.

### Yogurt, sour cream, cottage cheese, and ricotta cheese

- Choose full-fat or higher “% MF” dairy foods for more calories.
- Choose Greek or Icelandic yogurt for more protein.
- Use full-fat dairy foods to top vegetables, potatoes, casseroles, and soups.



## **Cheese**

- Grate and add to potatoes, vegetables, soups, eggs, noodles, or casseroles.
- Dip bread, potatoes, or vegetables in cheese sauce.

## **Milk (cow, soy, and pea)**

- Choose whole 3.25% milk for more calories.
- Use instead of water in soups, smoothies, and other recipes.
- Use as a base for smoothie, lassi, or horchata.

## **Skim milk and protein powder**

- Add to mashed potatoes, hot cereals, soups, or puddings.
- Blend into milk, smoothies, or milkshakes.

## **Nuts and seeds**

- Add to yogurt, cereal, ice cream, and pudding.
- Mix with dried fruit, cereal, and/or chocolate chips to make trail mix.

## **Nut and seed butter (like peanut butter, almond butter, and sesame paste)**

- Spread on bread and crackers, or dip fruit into it.
- Swirl through ice cream, yogurt, and hot cereals.
- Use to make salad dressing or sauce.

# High-calorie and protein meal and snack ideas

## Breakfast ideas

- **Oatmeal, Cream of Wheat® , creamy rice, or multigrain cereal.** Make with cow, soy, or pea milk instead of water. Add dried fruit, chopped nuts, sugar, or honey.
- **Scrambled eggs, scrambled tofu, paneer or egg bhurji.** Top with cheese. Eat with avocado, beans, or toast and butter.
- **French toast, crepes, pancakes, or waffles.** Top with syrup, ricotta cheese, Greek yogurt, peanut butter, or whipped cream.
- **Paratha.** Fill with paneer, cheese, dal, mung beans, chickpeas, or lentils.
- **Besan Pura** (chickpea omelettes). Cook in extra ghee or coconut oil. Eat with yogurt.
- **Cold breakfast cereal with high-protein milk.** Eat with chopped nuts, seeds, or dried fruit.
- **Greek or Icelandic yogurt or cottage cheese.** Eat with honey, fruit, and chopped nuts or seeds. Or try with chopped tomatoes and cucumber, olive oil, and herbs.
- **Congee, polenta, or grits with protein food** like eggs, chicken, tofu, shrimp, or pork. Stir in oil or butter for extra calories. Stir in flavourless protein powder for more protein.

## Lunch and dinner ideas

- **Sandwich** with egg, tuna, salmon, or chicken salad filling, peanut butter, hummus, cheese, or sliced meat. Add calories with butter, mayo, or avocado.
- **Stir-fry or pancit (Filipino noodles)**. Make with meat, seafood, or tofu. Eat with peanut or oyster sauce.
- **Chili** with beans or ground meat. Top with full-fat sour cream, grated cheese, and/or avocado
- **Dal** with plain Greek yogurt.
- **Stew, soup, or casseroles**. Make with meat, fish, egg, tofu, cheese, or legumes. Add heavy cream or oil for extra calories.
- **Curry with meat, paneer, or chickpeas** and coconut milk or cream.
- **Pasta or lasagna** with meat or cream sauce. Top with grated cheese.
- **Pierogis, dumplings, samosas, empanada, patties, apepas, or tamales**. Fill with meat, cheese, or beans. Pan fry with extra oil. Dip in full-fat sauce.
- **Fried rice, fried noodles, or soup noodles with protein foods** like fried eggs, chicken, pork, shrimp, or tofu.
- **Meat or fish**. Eat with gravy, cream sauce, or peanut sauce.



## Snack and dessert ideas

- **Peanut butter or nut butter** with apple slices, banana, or crackers.
- **Hummus, bean dip, guacamole, labneh, or tzatziki** with pita bread or chips.
- **Yogurt, cottage cheese, ricotta, or farmers cheese** with fruit, granola, and/or honey.
- **Fruit smoothie.** Make with a protein food.
- **Hardboiled egg, cheese, or nuts** with fruit, crackers, muffin, or other baked good.
- **Edamame beans or roasted chickpeas.**
- **Pudding, custard, mousse, or sweet sticky rice.** Make with cow, soy, pea, or high-protein milk.
- **Nachos** with cheese, beans, guacamole, and/or full-fat sour cream.
- **Walnut, almond, peanut, or sesame sweet porridge.**
- **Cheesecake, tiramisu, cream pies, egg tart.**
- **Ice cream, frozen yogurt, or milkshakes.**
- **Granola or protein bar.**
- **Dessert tofu** with fruit.
- **Golden (turmeric) milk** with pitha or cookie.



## High-calorie and protein recipes

### High-protein milk

Makes 1 cup (250 ml)

1 cup (250 ml) has 244 calories, 17 g protein

#### Blend together:

- 1 cup (250 ml) 3.25% whole milk
- $\frac{1}{4}$  cup (60 ml) skim milk powder

**Tip:** To make this recipe plant-based, use soy or pea milk and pea protein powder (provides 230 calories, 29 g protein).

### High-protein cinnamon raisin oatmeal

Makes 1 cup (250 ml)

1 cup (250 ml) has 463 calories, 18 grams protein

#### Ingredients:

- $\frac{1}{3}$  cup (75 ml) or 1 package instant oatmeal
- $\frac{3}{4}$  cup (175 ml) high-protein milk (recipe above)
- $\frac{1}{4}$  cup (60 ml) raisins
- 1 Tbsp. (15 ml) brown sugar
- Cinnamon

#### Instructions:

1. Add oatmeal, milk, and raisins to a large microwave-safe bowl.
2. Cook on high for 1 minute. Cook for an additional 15 seconds at a time if not done.
3. Top with cinnamon and brown sugar.

**Tip:** To make this recipe plant-based, use high-protein soy or pea milk (provides 453 calories, 27 g protein).

## **Banana berry smoothie**

Makes 2 cups (500 mL)

1 cup (250 ml) has 240 calories, 12 g protein

**In a blender, blend until smooth:**

- 1 cup (250 ml) whole 3.25% milk
- ½ cup (125 ml) 5% plain Greek yogurt
- ½ frozen banana
- ¼ cup (60 ml) frozen raspberries
- 1 Tbsp. (15 ml) flax seeds
- 1 Tbsp. (15 ml) honey

## **Green machine smoothie (plant-based)**

Makes 2 cups (500 ml)

1 cup (250 ml) has 242 calories, 18 g protein

**In a blender, blend until smooth:**

- 1 cup (250 ml) soy milk
- 1 frozen banana
- ½ avocado
- ½ cup (125 ml) raw spinach

**Blend quickly, just to mix in:**

- ¼ cup (60 ml) pea protein powder

## Super pudding

Makes 2 cups (500 ml)

½ cup (125 ml) has 253 calories, 6 grams protein

### Ingredients:

- 1 package pudding mix (any flavor)
- 2 cups (500 ml) cold 3.25% whole milk
- 2 Tbsp. (30 ml) vegetable oil
- 2 Tbsp. (30 ml) skim milk powder

### Instructions:

1. Put all ingredient in a large bowl. Beat with a whisk for 2 minutes.
2. Let stand for at least 5 minutes before eating.

## Chocolate chia pudding (plant-based)

Makes 1 cup (250 ml)

½ cup (125 ml) has 400 calories, 7 grams protein

### Ingredients:

- 1 cup (250 ml) coconut milk
- ¼ cup (60 ml) chia seeds
- ¼ cup (60 ml) cocoa powder
- 2 Tbsp. (30 ml) maple syrup

### Instructions:

1. Put all ingredients in a large bowl. Beat with a whisk for 2 minutes.
2. Cover and put in the fridge for at least 4 hours or overnight before eating.

For other high-calorie or high-protein recipes visit:

- Canadian Cancer Society: [cancer.ca/en/cancer-information/resources/recipes](https://cancer.ca/en/cancer-information/resources/recipes)
- ELLICSR Kitchen: [ellicsr.ca/en/clinics\\_programs/ellicsr\\_kitchen](https://ellicsr.ca/en/clinics_programs/ellicsr_kitchen)
- OncoLink: [oncolink.org/support/nutrition-and-cancer/recipes](https://oncolink.org/support/nutrition-and-cancer/recipes)
- Alberta Health Services: [albertahealthservices.ca/nutrition/Page16043.aspx](https://albertahealthservices.ca/nutrition/Page16043.aspx)  
(includes link to download a free PDF copy of “The High Protein Cookbook for Muscle Health During Cancer Treatment”)

Note: This is not a full list of brands or products. The Odette Cancer Centre does not recommend one brand over another. Talk to your dietitian if you have other health conditions or need help understanding how this information applies to you.

If you are a patient at the Odette Cancer Centre and you would like more nutrition information, please visit the Patient & Family Support office in TG 230 (T-wing, ground floor, room 230), call 416-480-4623, or visit [sunnybrook.ca/cancernutrition](https://sunnybrook.ca/cancernutrition)

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